

Sangui262-04

Patent claims

- 5 1. Wound dressing, characterized in that they display from 19 to 56% of one or
more structural proteins, 18 to 58% of one or more structural polysaccharides,
0.5 to 10 % polycarbonic acids, 0.1 to 15 % polyfunctional amino acids, 0 to
10% active substances 0 to 30% excipients and/or additives, and 0.2 to 5%
cross-linking agents.
- 10 2. Wound dressing according to claim 1, characterized in that it contains as struc-
tural proteins collagen, gelatine, derivatives or mixtures thereof.
- 15 3. Wound dressing according to claims 1 or 2, characterized in that it contains as
the structural polysaccharide chitosan and (or), chitosan derivatives or mixtures
thereof.
- 20 4. Wound dressing according to one of claims 1 to 3, characterized in that the po-
lycarbonic acid is chosen from: lactic acid, malic acid, succinic acid, malonic
acid, fumaric acid, ascorbic acid, glutaminic acid, salicylic acid, pyrrolidone car-
bonic acid or mixtures thereof.
- 25 5. Wound dressing according to one of claims 1 to 4, characterized in that as
polyfunctional acids the following are present: arginine, methionine, proline, tau-
rine, glycine, alanine, cysteine, N-acetylcysteine or mixtures thereof.
- 30 6. Procedure for the production of a wound dressing, containing 19 to 56% of one
or more structural proteins, 18 to 58 % of one or more structural polysacchari-
des, 0.5 to 10 % polycarbonic acids, 0.1 to 15 % polyfunctional amino acids, 0 to
10% active substances, 0.2 to 5 % cross-linking agents, 0 to 30 % excipients
and/or additives, characterized in that to an aqueous solution of the polysaccha-
ride a polycarbonic acid is added and to an aqueous solution of a structural
protein is added the same or a different polycarbonic acid, subsequently both
polymer solutions are dialyzed together and then polyfunctional amino acids and

active substances, cross-linking agents, additives and excipients of the dialyzed reaction mixture are added if necessary.

7. Procedure according to claim 6, characterized in that collagen of various origin
5 is used as the structural protein.
8. Procedure according to claim 7, characterized in that gelatine type A and type B are used as the structural protein.
9. Procedure according to claim 8, characterized in that high-molecular gelatine with a Bloom value of greater than 200 is used.
10. Procedure according to claims 6 to 9, characterized in that as the polysaccharide chitosan, its water-soluble derivatives or mixtures thereof are used.
11. Procedure according to claim 10, characterized in that chitosan with a molecular weight of greater than 200 kDa is used.
12. Procedure according to claims 6 to 11, characterized in that as the polycarbonic acid succinic acid, lactic acid, malic acid, fumaric acid, ascorbic acid, glutaminic acid, salicylic acid, pyrrolidone carbonic acid or mixtures thereof are used.
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13. Procedure according to claim 6, characterized in that polycarbonic acids are used in a ratio of 1 : 4 to 2 : 1 to high-molecular substances.
14. Procedure according to claims 6 to 13, characterized in that the solutions of structural polysaccharides, in particular chitosan and structural proteins, are mixed together at least 12 hours before dialysis.
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15. Procedure according to claim 6 to 14, characterized in that dialysis against water takes place in a volume ratio of polymer solution to water of at least 1:100 over the course of more than 16 hours.
- 25 16. Procedure according to claims 6 to 15, characterized in that polyfunctional amino acids are added to the dialysed solutions.

17. Procedure according to claim 6 to 16, characterized in that as polyfunctional amino acids arginine, proline, glutamate, taurine, glycine cysteine, N-acetylcysteine are used in concentrations of 0.1 – 15 %.
18. Procedure according to claim 17, characterized in that the polyfunctional amino acids are used in concentrations of 0.1-15%.
19. Procedure according to claim 6, characterized in that glutaraldehyde is used as the bifunctional cross-linking agent.
20. Procedure according to claim 6 to 19, characterized in that as pharmacologically active substance superoxide dismutase and/or catalase of various origin is used.
21. Procedure according to claim 20, characterized in that superoxide dismutase and/or catalase are used in a concentration of 0.001 to 0.1 % to the polymer base.
22. Procedure according to claim 6 to 21, characterized in that as pharmacologically active substance β -carotene of various origin is used.
23. Procedure according to claim 22, characterized in that as pharmacologically active substance β -carotene in liposomal form is used.
24. Procedure according to claim 22 or 23, characterized in that β -carotene in a concentration of 0.001 to 0.05 % to the polymer base is used.
25. Procedure according to claims 6 to 24, characterized in that as excipients antibacterial substances chosen from chlorhexidine, PolySept, polihexanide, plasticizers, high-molecular substances, that guarantee adhesion to the wound surface and/or excipients that influence the elimination of pharmaceutically active substances are used.
26. Procedure according to claim 25, characterized in that antibacterial substances in a concentration of 0.01 to 0.6 % to the polymer base are used.
27. Procedure according to claim 25 or 26, characterized in that the additives/excipients are added to the dialysate in a concentration of 10 – 30 %.

28. Procedure according to claim 27, characterized in that as excipients polyvinyl alcohol and polyvinylpyrrolidone are used.
29. Use of a wound dressing according to claim 1 to 5 or produced according to claim 6 to 28 for the production of an agent for the accelerated healing of post-traumatic and surgical wounds.
30. Use of a wound dressing according to claims 1 to 5 or manufactured according to claim 6 to 28 for the preparation of an agent, characterized in that the healing of first to third degree burns is accelerated.
31. Use of a wound dressing according to one of claims 1 to 6, or manufactured according to claim 6 to 28 for the preparation of an agent, characterized in that the healing of infected or chronic burns of varying etiology is accelerated.
32. Use of a wound dressing according to claim 1 to 5, or manufactured according to claim 6 to 28 for the accelerated healing of post-traumatic and surgical chronic, infected wounds or burns.